

CLAIMS

1. A short-circuit detection probe comprising:
a probe body having a housing and a cover, the housing
defining an internal cavity having a profile;
- 5 a probe pin comprising an upper part and a lower part, the
probe pin mounted within said internal cavity and comprising electrical
connectivity and said lower part comprising a lower end connected to a
magnet;
- a push springs wound around said upper part of said probe pin;
- 10 stoppage means mounted at the bottom of said push spring;
and
a return spring wound around said lower part of said probe pin,
wherein said internal cavity profile comprises a stoppage step for
accommodating said stoppage means at its lowermost position.
- 15 2. The short-circuit detection probe of claim 1, wherein said magnet
comprises part of said lower end.
3. The short-circuit detection probe of claim 1, wherein said
stoppage means comprise a washer.
4. Means for monitoring continued registration of a sheet of
20 material in a device for processing said sheet, comprising:
registration means for registering said sheet in a required
position;
sensing means for sensing the registration condition, said
sensing means adapted to cause a short circuit upon sensing said condition;
- 25 and

the probe of claim 1, magnetically connected with said sensing means, for maintaining electric continuity , thereby continuously monitoring said registration condition during a predefined sequence of operations.

5. The apparatus of claim 4, wherein said sensing means comprise
5 an electrical sensor.

6. The apparatus of claim 4, wherein said sensing means comprise an optical sensor.

7. In an external drum CTP device, a method of monitoring continuous registration of a mounted printing plate until the plate's leading
10 edge is firmly secured to the surface of the drum, comprising the steps of:
providing a plurality of leading edge clamps along the longitudinal axis of said drum surface;
providing a detachable clamp actuator for opening said clamps for accommodating and releasing a printing plate;
15 attaching a plurality of short circuit detection probes as in claim 1 to said actuator, each said probes positioned with respect to a respective one of said leading edge clamps;
providing registration pins on the surface of said drum, each said registration pins electrically connected with a respective probe area;
20 operating said actuator to open said plurality of leading edge clamps, whereby said probes create electric continuity by contacting said respective probe areas and are magnetically attached thereto;
mounting a printing plate onto the external surface of the drum until the leading edge of the plate contacts the registration pins thereby
25 creating a short circuit; and

detaching said actuator from said leading edge clamps, thereby
closing the clamps for securing the registered plate,

wherein said probe remains magnetically attached to said probe area
thus providing continued electric continuity for a period of time following said
5 detaching.

8. The method of claim 7, wherein said period of time is determined by the
maximum distance between said stoppage means and said stoppage step.

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